

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A system that facilitates web-crawling, comprising:
 - a managing component that performs a predictive analysis to predict when a web page will change, in connection with determining in order to determine if, when, and how to perform web-crawling; and
 - a web-crawling component that crawls subsets of web pages as a function of the predictive analysis, to discover and update the pages in a catalogue of possible search results.
2. (Original) The system of claim 1, further comprising a decision-theoretic component that makes predictions regarding changes in at least one web page to determine an appropriate time to crawl the at least one web page.
3. (Original) The system of claim 2, the decision-theoretic component makes predictions regarding changes in the at least one web page based at least in part on:
 - a set of possible actions, A, to be performed on the at least one web page;
 - a set of possible outcomes, O;
 - a probability that a particular outcome will occur, Pr; and
 - a utility factor associated with each outcome, Utility(O).
4. (Original) The system of claim 3, the decision-theoretic component makes predictions regarding changes in the at least one web page via selecting an action, a, from the set of possible actions A, which maximizes the value of:

$$\sum_{o \in O} \Pr(o | a) \times \text{Utility}(o)$$

where o is an outcome in the set of all possible outcomes, O.

5. (Original) The system of claim 1, the predictive analysis is based at least in part on the utility of the at least one web page.
6. (Original) The system of claim 1, the predictive analysis is based at least in part on historical data related to the at least one web page.
7. (Original) The system of claim 1, the predictive analysis is based at least in part on content contained in the at least one web page.
8. (Currently Amended) The system of claim 1, further comprising a bundling component that rearranges crawled web pages into new subsets according to the utility of the ~~of the~~ web pages.
9. (Original) The system of claim 1, the web-crawling component comprises a Round Robin crawling component that sequentially crawls web pages in a subset and ensures that every web page will be crawled within a crawling period, and a Greedy crawling component that non-sequentially crawls pages according to a score associated with each page.
- 10.-37. (Cancelled)
38. (New) A computer readable medium that has computer executable instructions stored thereon to:
- predict when a web page will change in order to determine if, when, and how to perform web-crawling; and
 - crawl subsets of web pages based on the predicting when a web page will change, to catalogue possible web page search results.
39. (New) The computer readable medium of claim 38, further comprising instructions that make predictions regarding changes in at least one web page and determining an appropriate time to crawl the at least one web page.

40. (New) The computer readable medium of claim 39, the instructions that make predictions regarding changes in the at least one web page based further comprise instructions that:

- perform a set of possible actions, A, the at least one web page;
- determine a set of possible outcomes, O;
- determine a probability that a particular outcome will occur, Pr; and
- associate a utility factor with each outcome, Utility(O).

41. (New) The computer readable medium of claim 40, the instructions that make predictions regarding changes in the at least one web page via selecting an action, a, from the set of possible actions A, so as to obtain a maximum for the value of:

$$\sum_{o \in O} \Pr(o | a) \times \text{Utility}(o)$$

where o is an outcome in the set of all possible outcomes, O.

42. (New) The computer readable medium of claim 38, the instructions that predict are based at least in part on the utility of the at least one web page.

43. (New) The computer readable medium of claim 38, the instructions that predict are based at least in part on historical data related to the at least one web page.

44. (New) The computer readable medium of claim 38, the instructions that predict are based at least in part on content contained in the at least one web page.

45. (New) The computer readable medium of claim 38, further comprising instructions that rearrange the crawled web pages into new subsets according to the utility of the web pages.

46. (New) The computer readable medium of claim 38, the instructions that crawl comprise instructions that sequentially crawl web pages in a subset within a crawling period, and non-sequentially crawl pages according to a score associated with each page.

47. (New) A system that facilitates web-crawling, comprising:

means for performing a predictive analysis to predict when a web page will change, in order to determine in connection with determining if, when, and how to perform web-crawling; and

means for crawling subsets of web pages as a function of the predictive analysis, to compile a catalogue of possible web page search results.

48. (New) The system of claim 47, the predictive analysis is based on at least one of the utility of the at least one web page, historical data related to the at least one web page, and content contained in the at least one web page.